In the Claims:

Please amend claims 1, 2, 8, 9, 13, 14, 19, 24, 51, 52, 57, 58, 62, 63, 68, 73, 100, 106-108, 110-112 and 117, and please cancel claims 136 and 138, as indicated below.

1. (Currently amended) A method for bridging a first computing environment based upon a message passing model to a second computing environment, comprising:

a first entity in the first computing environment obtaining an advertisement for a service accessible through the second computing environment, wherein the advertisement includes access information for accessing the service;

the first entity using the access information from the advertisement to access the service, wherein the first entity using the access information from the advertisement comprises the first entity accessing a proxy service through messages in a ~~data representation~~ markup language in the first computing environment and according to the access information in the advertisement;

the proxy service providing to the first entity an interface to a second entity in the second computing environment, wherein the second entity is the service in the second computing environment; wherein the first entity can not distinguish between the proxy service and the service in the second computing environment; and

the first entity accessing the service in the second computing environment through the interface provided by the proxy service and according to the access information in the advertisement.

2. (Currently amended) The method as recited in claim 1, wherein the interface provides a ~~data representation~~ markup language messaging channel between the proxy service and the first entity in the first computing environment, and wherein the interface

further provides a communications channel between the proxy service and the second entity in the second computing environment.

3. (Previously presented) The method as recited in claim 1, wherein the first entity is a client in the first computing environment, wherein the interface provided by the proxy service enables the first entity to access resources provided by the service to clients in the second environment.

4. (Previously presented) The method as recited in claim 3, wherein the proxy service providing to the first entity the interface to the second entity in the second computing environment comprises locating the service among a plurality of services accessible through the second computing environment.

5. (Previously presented) The method as recited in claim 4, wherein said locating the service among the plurality of services accessible through the second computing environment comprises determining that the second entity includes information identifying the entity as the service accessible by entities in the first environment through proxy service interfaces to the second computing environment.

6. (Previously presented) The method as recited in claim 3, wherein the proxy service providing to the first entity an interface to the second entity in the second computing environment comprises providing the advertisement for the service.

7. (Previously presented) The method as recited in claim 6, further comprising:

publishing the advertisement for the service on a space in the first computing environment; and

wherein the first entity accessing a service comprises:

the first entity accessing the advertisement for the service from one or more advertisements published on the space; and

the first entity accessing the service in accordance with the access information in the advertisement for the second entity.

8. (Currently amended) The method as recited in claim 6, wherein the advertisement includes information describing one or more computer programming language method calls to methods in the computer programming language provided by the service, the method further comprising constructing on the first entity a client method gate configured to provide an interface to the service by generating ~~data representation~~ markup language messages including information representing the method calls.

9. (Currently amended) The method as recited in claim 8, wherein the first entity accessing the service comprises:

the first entity generating a method call in the computer programming language;

the client method gate generating a ~~data representation~~ markup language message including information representing the method call;

the client method gate sending the ~~data representation~~ markup language message to a proxy method gate comprised on the proxy service;

the proxy method gate generating one or more objects in the computer programming language from the information representing the method call; and

the proxy service invoking a method of the service, wherein the one or more objects are passed to the method in said invoking.

10. (Previously presented) The method as recited in claim 9, further comprising:

the service executing the invoked method, wherein said executing generates results data;

the service sending the results data to the proxy service.

11. (Original) The method as recited in claim 10, further comprising:

the proxy service generating a results advertisement for the results data;

the proxy service sending the results advertisement to the client method gate; and

the first entity generating a results method gate from the results advertisement sent to the client method gate.

12. (Original) The method as recited in claim 8, wherein the computer programming language is Java.

13. (Currently amended) The method as recited in claim 1, further comprising:

the first entity sending a first message in the ~~data representation~~ markup language to the proxy service, wherein the first message includes information for the service;

converting the first message in the ~~data representation~~ markup language to a first transmission compatible with the second computing environment and receivable by the service in the second computing environment; and

sending the first transmission to the service in the second computing environment.

14. (Currently amended) The method as recited in claim 1, further comprising:

the service sending a first transmission compatible with the second computing environment to the proxy service, wherein the first transmission includes information for the first entity;

converting the first transmission to a first message in the ~~data representation~~ markup language, wherein the first message includes the information from the first transmission; and

sending the first message to the first entity in the first computing environment.

15. (Previously presented) The method as recited in claim 14, wherein the first entity is a client in the first computing environment, and wherein the information in the first transmission is results data generated by the service in response to a request sent to the service by the first entity through the proxy service.

16. (Previously presented) The method as recited in claim 1, further comprising:

the service sending a first transmission compatible with the second computing environment to the proxy service, wherein the first transmission includes data for the first entity;

storing the data received in the first transmission; and

providing an advertisement for the stored data to the first entity, wherein the advertisement for the stored data includes access information for the stored data.

17. (Original) The method as recited in claim 16, further comprising:

the first entity accessing the advertisement for the stored data; and

the first entity accessing the stored data in accordance with the access information for the stored data in the advertisement for the stored data.

18. (Previously presented) The method as recited in claim 16, wherein the first entity is a client in the first computing environment, and wherein the data in the first transmission is results data generated by the service in response to a request sent to the service by the first entity through the proxy service.

19. (Currently amended) The method as recited in claim 1, wherein the second environment is a message-based environment using a different language for messages than the ~~data representation~~ markup language used for messages in the first environment.

20. (Original) The method as recited in claim 1, wherein the second environment is a non-message based environment.

21. (Original) The method as recited in claim 1, wherein communication among entities in the second environment uses remote method invocation (RMI).

22. (Original) The method as recited in claim 21, wherein the second environment is a Jini environment.

23. (Original) The method as recited in claim 1, wherein the second environment is an enterprise computing environment, wherein the second entity is an enterprise service accessible through the enterprise computing environment.

24. (Currently amended) The method as recited in claim 1, wherein the ~~data representation~~ markup language is eXtensible Markup Language (XML).

25. – 50. (Canceled)

51. (Currently amended) A distributed computing system, comprising:

a first device in a first computing environment based upon a message passing model;

a second device in a second computing environment not based upon the message passing model of the first environment, wherein the second device provides a service in the second computing environment; and

a proxy service configured to provide an interface to the second device in the second computing environment to entities in the first environment such that the first entity can not distinguish between the proxy service and the second entity;

wherein the first device is configured to:

obtain an advertisement for the service, wherein the advertisement includes access information for accessing the service in the second computing environment from the first environment;

access the proxy service through messages in the ~~data representation~~ markup language in the first computing environment and according to the access information in the advertisement; and

access the service in the second computing environment through the interface provided by the proxy service and according to the access information in the advertisement.

52. (Currently amended) The system as recited in claim 51, wherein, in said providing an interface, the proxy service is further configured to:

provide a ~~data representation~~ markup language messaging channel between the proxy service and the first device in the first computing environment; and

provide a communications channel between the proxy service and the second device in the second computing environment.

53. (Previously presented) The system as recited in claim 51, wherein the first device is a client in the first computing environment, and wherein the proxy service is further configured to enable the first device to access resources provided by the second device to clients in the second environment.

54. (Previously presented) The system as recited in claim 53, further comprising:

a plurality of services accessible through the second computing environment;

wherein, in said providing an interface, the proxy service is further configured to locate the service among the plurality of services accessible through the second computing environment.

55. (Previously presented) The system as recited in claim 54, wherein, in said locating the service among the plurality of services accessible through the second computing environment, the proxy service is further configured to determine that the second device comprises information identifying the device as a service accessible by entities in the first environment through proxy service interfaces to the second computing environment.

56. (Previously presented) The system as recited in claim 53, wherein, in said providing an interface, the proxy service is further configured to:

provide the advertisement for the service in the second computing environment; and

wherein, in said accessing the service in the second computing environment through the interface, the first device is further configured to:

access the advertisement for the second device; and

access the second device in accordance with the access information in the advertisement for the second device.

57. (Currently amended) The system as recited in claim 56, wherein the advertisement includes information describing one or more computer programming language method calls to methods in the computer programming language provided by the service, wherein the first device is further configured to construct a client method gate configured to provide an interface to the second device by generating ~~data representation~~ markup language messages including information representing the method calls.

58. (Currently amended) The system as recited in claim 57,

wherein, in said accessing the service, the first device is further configured to generate a method call in the computer programming language;

wherein the client method gate is configured to:

generate a ~~data representation~~ markup language message including information representing the method call; and

send the ~~data representation~~ markup language message to a proxy method gate comprised on the proxy service;

wherein the proxy method gate is configured to generate one or more objects in the computer programming language from the information representing the method call; and

wherein the proxy service is further configured to invoke a method of the service, wherein the one or more objects are passed to the method in said invoking.

59. (Previously presented) The system as recited in claim 58, wherein the service is further configured to:

execute the invoked method, wherein said executing generates results data; and

send the results data to the proxy service.

60. (Original) The system as recited in claim 59,

wherein the proxy service is further configured to:

generate a results advertisement for the results data; and

send the results advertisement to the client method gate; and

wherein the first device is further configured to generate a results method gate from the results advertisement sent to the client method gate.

61. (Original) The system as recited in claim 57, wherein the computer programming language is Java.

62. (Currently amended) The system as recited in claim 51,

wherein the first device is further configured to send a first message in the ~~data representation~~ markup language to the proxy service, wherein the first message includes information for the service; and

wherein the proxy service is further configured to:

convert the first message in the ~~data representation~~ markup language to a first transmission compatible with the second computing environment and receivable by the service in the second computing environment; and

send the first transmission to the service in the second computing environment.

63. (Currently amended) The system as recited in claim 51,

wherein the service is configured to send a first transmission compatible with the second computing environment to the proxy service, wherein the first transmission includes information for the first device;

wherein the proxy service is further configured to:

convert the first transmission to a first message in the ~~data representation~~ markup language, wherein the first message includes the information from the first transmission; and

send the first message to the first device in the first computing environment.

64. (Previously presented) The system as recited in claim 63, wherein the first device is a client in the first computing environment and wherein the information in the

first transmission is results data generated by the service in response to a request sent to the service by the first device through the proxy service.

65. (Previously presented) The system as recited in claim 51,

wherein the service is configured to send a first transmission compatible with the second computing environment to the proxy service, wherein the first transmission includes data for the first device;

wherein the proxy service is further configured to:

store the data received in the first transmission; and

provide an advertisement for the stored data to the first device, wherein the advertisement for the stored data includes access information for the stored data.

66. (Original) The system as recited in claim 65, wherein the first device is further configured to:

access the advertisement for the stored data; and

access the stored data in accordance with the access information for the stored data in the advertisement for the stored data.

67. (Previously presented) The system as recited in claim 65, wherein the first device is a client in the first computing environment and wherein the data in the first transmission is results data generated by the service in response to a request sent to the service by the first device through the proxy service.

68. (Currently amended) The system as recited in claim 51, wherein the second environment is a message-based environment using a different language for messages than the ~~data representation~~ markup language used for messages in the first environment.

69. (Original) The system as recited in claim 51, wherein the second environment is a non-message based environment.

70. (Original) The system as recited in claim 51, wherein communication among entities in the second environment uses remote method invocation (RMI).

71. (Original) The system as recited in claim 70, wherein the second environment is a Jini environment.

72. (Previously presented) The system as recited in claim 51, wherein the second environment is an enterprise computing environment, wherein the second device is an enterprise service accessible through the enterprise computing environment.

73. (Currently amended) The system as recited in claim 51, wherein the ~~data representation~~ markup language is eXtensible Markup Language (XML).

74. – 99. (Canceled)

100. (Currently amended) A computer-readable storage medium storing program instructions, which when executed by computer implement:

a proxy service providing an advertisement for a service accessible through a second computing environment, wherein the advertisement includes access information for accessing the service in a first computing environment based upon a message passing model;

in response to a first entity in the first computing environment using the access information from the advertisement to access the service, the proxy service receiving messages in a ~~data representation~~ markup language from the first entity in the first computing environment and according to the access information in the advertisement;

the proxy service providing to the first entity an interface to a second entity in the second computing environment, wherein the second entity is the service accessible through the second computing environment; wherein the first entity can not distinguish between the proxy service and the service in the second computing environment; and

the proxy service providing to the first entity access to the service in the second computing environment through the interface provided by the proxy service and according to the access information in the advertisement.

101. (Previously presented) The computer-readable storage medium as recited in claim 100, wherein the first entity is a client in the first computing environment, and wherein the interface provided by the proxy service enables the first entity to access resources provided by the second entity to clients in the second environment.

102. (Previously presented) The computer-readable storage medium as recited in claim 101, wherein, in said providing to the first entity the interface to the second entity in the second computing environment, the program instructions, when executed by computer further implement locating the service among a plurality of services accessible through the second computing environment.

103. (Previously presented) The computer-readable storage medium as recited in claim 102, wherein, in said locating the service among the plurality of services accessible through the second computing environment, the program instructions, when executed by computer further implement determining that the second entity includes information

identifying the entity as a service accessible by entities in the first environment through proxy service interfaces to the second computing environment.

104. (Previously presented) The computer-readable storage medium as recited in 101, wherein, in providing to the first entity an interface to a second entity in the second computing environment, the program instructions, when executed by computer, further implement providing the advertisement for the service.

105. (Previously presented) The computer-readable storage medium as recited in claim 104,

wherein the program instructions, when executed by computer further implement publishing the advertisement for the service on a space in the first computing environment.

106. (Currently amended) The computer-readable storage medium as recited in claim 104,

wherein the advertisement includes information describing one or more computer programming language method calls to methods in a computer programming language provided by the second entity;

wherein the information included in the advertisement is usable to construct on the first entity a client method gate configured to provide an interface to the service by generating ~~data representation~~ markup language messages including information representing the method calls.

107. (Currently amended) The computer-readable storage medium as recited in claim 106, wherein, in providing access to the service, the program instructions, when executed by computer further implement:

a proxy method gate on the proxy service receiving from a client method gate on the first entity a ~~data representation~~ markup language message including information representing a method call in the computer programming language;

the proxy method gate generating one or more objects in the computer programming language from the information representing the method call;

the proxy service invoking a method of the service, wherein the one or more objects are passed to the method in said invoking; and

the proxy service receiving results data from the service in response to the service executing the invoked method service.

108. (Currently amended) The computer-readable storage medium as recited in claim 107, wherein the program instructions, when executed by computer further [[to]] implement:

the proxy service generating a results advertisement for the results data;

the proxy service sending the results advertisement to the client method gate; and

wherein the results advertisement is usable by the first entity to generate a results method gate from the results advertisement sent to the client method gate.

109. (Previously presented) The computer-readable storage medium as recited in claim 107, wherein the computer programming language is Java.

110. (Currently amended) The computer-readable storage medium as recited in claim 100, the program instructions, when executed by computer further [[to]] implement:

the proxy service receiving from the first entity a first message in the ~~data representation~~ markup language to the proxy service, wherein the first message includes information for the service;

converting the first message in the ~~data representation~~ markup language to a first transmission compatible with the second computing environment and receivable by the service in the second computing environment; and

sending the first transmission to the service in the second computing environment.

111. (Currently amended) The computer-readable storage medium as recited in claim 100, the program instructions, when executed by computer further [[to]] implement:

receiving from the service a first transmission compatible with the second computing environment, wherein the first transmission includes information for the first entity;

converting the first transmission to a first message in the ~~data representation~~ markup language, wherein the first message includes the information from the first transmission; and

sending the first message to the first entity in the first computing environment;

wherein the information in the first transmission is results data generated by the service in response to a request sent to the service by the first entity through the proxy service.

112. (Currently amended) The computer-readable storage medium as recited in claim 100, the program instructions, when executed by computer further [[to]] implement:

receiving from the service a first transmission compatible with the second computing environment, wherein the first transmission includes data for the first entity;

storing the data received in the first transmission; and

providing an advertisement for the stored data to the first entity, wherein the advertisement for the stored data includes access information for the stored data;

wherein the data in the first transmission is results data generated by the service in response to a request sent to the service by the first entity through the proxy service.

113. (Previously presented) The computer-readable storage medium as recited in claim 100, wherein the second environment is a non-message based environment.

114. (Previously presented) The computer-readable storage medium as recited in claim 100, wherein communication among entities in the second environment uses remote method invocation (RMI).

115. (Previously presented) The computer-readable storage medium as recited in claim 114, wherein the second environment is a Jini environment.

116. (Previously presented) The computer-readable storage medium as recited in claim 100, wherein the second environment is an enterprise computing environment,

wherein the service is an enterprise service accessible through the enterprise computing environment.

117. (Currently amended) The computer-readable storage medium as recited in claim 100, wherein the ~~data representation~~ markup language is eXtensible Markup Language (XML).

118. – 139. (Canceled)